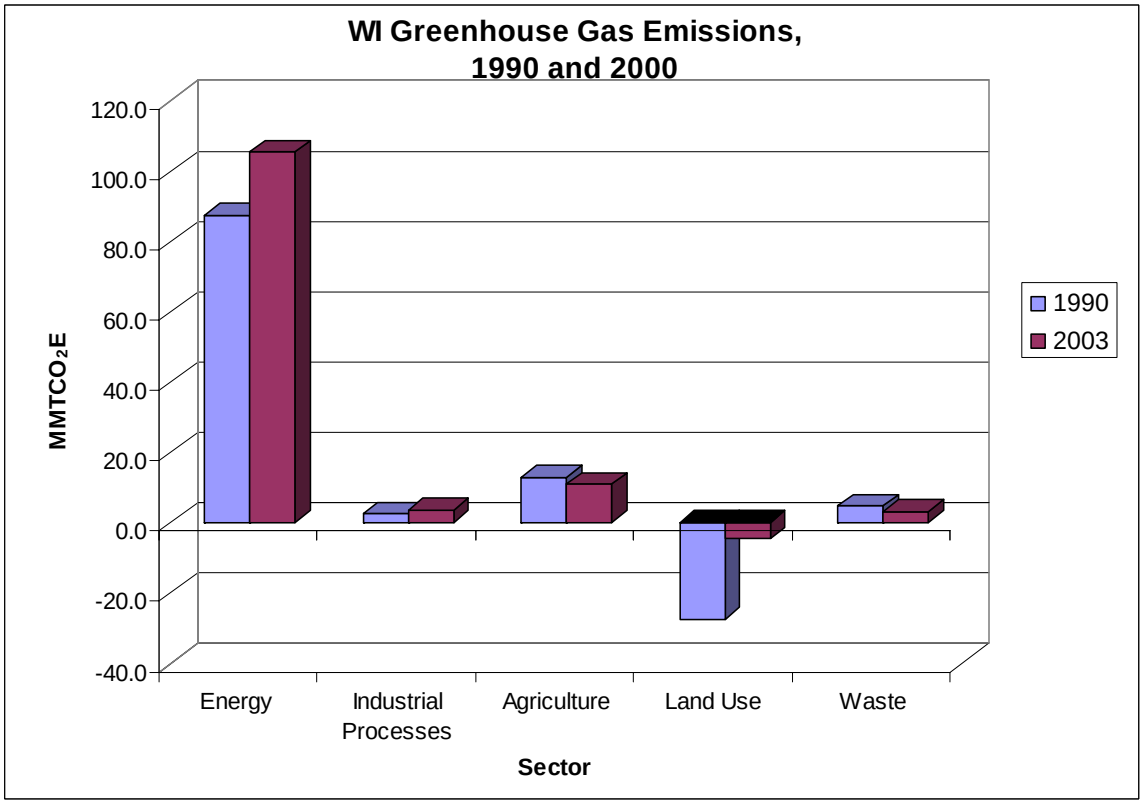
WISCONSIN GREENHOUSE GAS EMISSIONS AND SINKS INVENTORY: SUMMARY



The Wisconsin Task Force on Global Warming report, *Wisconsin Greenhouse Gas Emissions Inventory and Projections,* provides estimates for Wisconsin's greenhouse gases (GHG) by sector for 1990 and 2003.[1]

In 1990, Wisconsin emitted GHGs in the amount of 78.4 million metric tons carbon dioxide equivalent ($MMTCO_2E$). In 2003, GHG emissions from Wisconsin increased by 51 percent to 118.4 $MMTCO_2E$.

Emissions from agriculture and waste declined by 15 and 34 percent, respectively, between 1990 and 2003. This is in contrast to the industrial processes and energy sectors where emissions increased by 40 and 21 percent, respectively.

Emissions from the energy sector, which constitutes the majority (86 percent) of gross GHG emissions, increased as a result of a 29 percent increase in electricity generation in Wisconsin. This source alone contributes 43.1 $MMTCO_2E$ or 35 percent of gross emissions. The land use sector was a net sink for Wisconsin offsetting 4.7

[1] Historical GHG emission estimates (1990 through 2003) were estimated using a set of generally-accepted principles and guidelines for state greenhouse gas emission estimates, with adjustments to provide Wisconsin-specific data and inputs when it was possible to do so. The inventory estimates were compiled using the Climate Analysis Indicators Tool (CAIT) which is developed by the World Resources Institute.

$MMTCO_2E$, or 4 percent of gross emissions in 2003. This sink has decreased by 83 percent from 27.5 $MMTCO_2E$ since 1990.

1990	CO_2 ($MMTCO_2E$)	CH_4 ($MMTCO_2E$)	N_2O ($MMTCO_2E$)	HFCs, PFCs, and SF_6 ($MMTCO_2E$)	Total ($MMTCO_2E$)
Energy	*	*	*	*	87.6
Industrial Processes	*	*	*	*	2.5
Agriculture	*	*	*	*	12.8
Land Use	*	*	*	*	-27.5
Waste	*	*	*	*	4.7
Net Emissions	*****	*****	*****	*****	**78.4**

2003	CO_2 ($MMTCO_2E$)	CH_4 ($MMTCO_2E$)	N_2O ($MMTCO_2E$)	HFCs, PFCs, and SF_6 ($MMTCO_2E$)	Total ($MMTCO_2E$)
Energy	104.3	0.2	1.1	0.0	105.6
Industrial Processes	1.2	0.0	0.0	2.2	3.5
Agriculture	0.0	6.1	4.8	0.0	10.9
Land Use	-4.7	0.0	0.0	0.0	-4.7
Waste	0.0	2.8	0.3	0.0	3.1
Net Emissions	**100.8**	**9.1**	**6.3**	**2.2**	**118.4**

Note: Totals may differ from the sum of the sources due to independent rounding. All emissions are reported in million metric tons of carbon dioxide equivalent ($MMTCO_2E$).
* The Wisconsin Inventory did not include estimates by gas type for 1990; thus, emissions of all gases, expressed in CO_2 equivalents are presented in the right-most column.

In terms of emissions by gas, carbon dioxide (CO_2) is the primary contributor (86 percent) to gross GHG emissions in Wisconsin. Of these CO_2 emissions, most (99 percent) were from the energy sector in 2003. Most of the methane (CH_4) emitted in the state was from agriculture, although the waste sector contributes 31 percent of total CH_4. Nitrous oxide (N_2O) emissions comprise 5 percent of Wisconsin's gross GHG emissions. These N_2O emissions are mostly from agriculture with a small contribution (17 percent) from the energy sector. Emissions of HFCs, PFCs, and SF_6 as a result of industrial processes account for 2 percent of Wisconsin's gross emissions in 2003.

Gross per capita emissions from Wisconsin were 23 $MTCO_2E$ in 2003, which is slightly less than the gross national per capita average of 25 $MTCO_2E$.